

Appl. No. 09/822,966
Amdt. dated January 12, 2005
Reply to Office Action of November 18, 2004

PATENT

REMARKS/ARGUMENTS

The Examiner is thanked for indication of allowable subject matter in claims 3-9 and 11-17. Independent claim 1 and dependent claims 2 and 10 stand rejected over applied art. The rejections will be addressed hereafter.

Claims 1-17 stand rejected under 35 U.S.C. § 112, second paragraph. The rejection has been addressed and remedied by adding the term "DAMA WAN" after "(NCS)" in claim 1.

Subject Invention

The present invention discloses a scheme for mesh DAMA satellite WAN networks to enable network access across the satellite network to and from networks accessible to individual satellite network terminals. It has the advantage of keeping an updated map of all networks reachable by nodes of the WAN.

Rejection of Claim 1:

Claim 1 stands rejected under 35 U.S.C. § 103(a) as obvious over Hreha (US 6,400,696) in view of Kawamura, et al. (US 6,693,879). The Applicants respectfully traverse the rejection. Hreha is directed toward replacing a mesh network with a hub-spoke system to provide network access. It provides as an overlay a *non-asynchronous* transfer mode protocol on one or more DAMA protocols.

While it may be that the Examiner infers that Hreha is an example of the second element of claim 1, since he asserts that "allocations" are inherent, Hreha clearly teaches away from a combination with or usefulness in a meshed system: Referring to Col 2, line 5-6, it states: "Direct internet access is more desirable than obtaining access via meshed private networks." Again referring to Col 4, lines 28-29: "The present system 20 does not support meshed networks."

Since the present invention is directed to an environment of meshed networks, in view of the clear teachings of Hreha, Hreha is inherently deficient.

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Kawamura has been cited to augment the deficiencies of Hreha. The Applicants respectfully traverse the application of Kawamura. Kawamura is directed to a method to allow communication among a group of directional wireless (infrared) transceivers, some of which cannot see each other. A device according to Kawamura has both a direct communicable device memory and an indirect communicable device memory.

The examiner has evidently implied, but not directly stated, that Kawamura incorporates a network map such as claimed in the present invention. The relevant element of claim 1 is:

"constructing a network map of all directly and indirectly connected IP network prefixes reachable via said DAMA WAN."

The "network map" of Kawamura is the map of *network nodes (devices)* directly (single hop, element 130 of Figure 2) or indirectly (multiple hop, element 140 of Figure 2) reachable via the subject wireless network from a single subject node. Kawamura's method involves exchanging lists of devices. As stated in Col. 4, lines 18-22:

"instruction means for causing a computer to receive the direct communicable device list from the other device; instruction means for causing a computer to store the direct communicable device list as an indirect communicable device for the own device."

Each node maintains its own "map," according to this definition, and each map only contains information on network nodes, so no such map can be considered to be a map of "all directly and indirectly connected IP network prefixes reachable via said DAMA WAN."

Argument

The combination of Hreha and Kawamura does not suggest the present invention. The system of Kawamura is fundamentally different from the claimed invention. In the claimed invention as claimed, the situation exists wherein *all* terminals can at least talk to a central controller—and in general can all talk to each other. By contrast, Kawamura is directed toward a system of autonomous terminals that speak to each other and propagate a connection table through the network. It is notably silent on connecting EXTERNAL networks through the

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wireless communication network, which is the underlying motivation and whole point of the present invention. As stated in Kawamura Col 3. lines 1-6:

"It is an object of the present invention to provide a data communication apparatus and a method to mutually communicate for a plurality of devices even if the communicatable areas of the plurality of devices do not overlap."

Thus, the combination of references does not suggest the present invention.

Claims 2 and 10 stand rejected under 35 USC §103(a) over Hreha-Kawamura in view of Bion. As to the Bion patent, the Applicants submit that the arguments with respect to claim 1 are equally applicable to claims 2 and 10. Moreover, Bion is further distinguishable for the following reasons. Bion is directed to a scheme for traditional wireline network links in which quasi-dynamic routes are established, for example in a dial-on-demand serial link. Automatic aging of routes is prevented without manually configuring static route tables.

Claim 2 of the present application recites: "periodically transmitting routing information *whether or not* said routing information has changed."

In contrast, Bion teaches the transmittal of routing (connectivity) information *only* as it changes:

Col 3, line 53-57 recites:

"The connectivity table 113 also includes a set of dynamic routes 111(b), which are learned from servers 110 such as neighbor routers 103 and updated in the connectivity table 113 periodically, in response to updated connectivity information."

It must therefore be concluded that Bion teaches away from the claimed invention.

Claim 10 of the present application recites:

"updating routes via *a designated router*"

In contrast, the router updates in Bion occur over the single link 120 between client 112 and server 110. In such a singly connected system, there are no possible alternative routers, so *there can be no designated router*, such as in the DAMA WAN system of the subject invention. Router or routers 103 in Bion are conventional routers that interconnect LANs 101 and interact with the inventive element of Bion only indirectly.

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Moreover, the context of the Bion environment with its, the single (assumed wired) communication link 120 puts the entire document into an entirely different technical area.

It can thus be seen that one of ordinary skill in the art would not be led to the present claimed invention by use of the concepts taught by the cited combination. The obviousness rejection is not well-founded.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Respectfully submitted,



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